



The Sampler

October 18, 2012

The Sampler is a monthly e-newsletter produced by the Volunteer Lake Assessment Program.

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Web Highlights

This month's featured lake website is Beaver Lake in Derry, NH <http://beaver-lake.org/>

Upcoming Events

Center for Watershed Protection Webcast Leaving You Out in the Rain - Design and Implementation of Monitoring Projects October 24, 2012

[Register](#)

Grants

Reminder! 2013 Watershed Assistance Grants

For implementation of watershed-based plans to restore nonpoint source impaired waters or to protect high quality waters.

Deadline November 21, 2012

Limno Lingo

Bacillariophyta: A major group of algae known as

The 2012 National Lakes Assessment

This summer 11 randomly selected lakes in New Hampshire were involved in a national project to assess the condition of the nation's lakes. Coordinated by the EPA, the NLA is an intensive survey that includes the collection of various water quality parameters and indicators such as clarity, conductivity, total phosphorus, nitrates, alkalinity, dissolved oxygen, plankton, macroinvertebrates, and microcystin (toxin produced by cyanobacteria). Lake sediment cores are collected to analyze for mercury, diatom assemblage and provide sediment dating. Detailed surveys of the littoral zone, lakeshore and macrophytes are performed to assess habitat type. The information is then compiled to determine the percent of lakes in a certain condition (good, fair, or poor) on a state, regional and national level. However, the results are not designed to be used on individual waterbodies. Therefore, water sampling through VLAP or similar citizen volunteer monitoring programs continue to play a valuable and vital role on the local level.

Past NLA activities include a 2007 survey on a large number of control lakes, or lakes that show little to no human influence or degradation. The next NLA is planned for 2017. In 2013 the condition of the nation's rivers and streams will be assessed providing valuable information on watershed health and relation to lake quality. The link to the 2007 summary report, fact sheets and other information about the NLA program are available at www.epa.gov/lakessurvey.

Volunteering in America

We all know that volunteering our time is essential to helping our State thrive. Whether you're volunteering at a local shelter, collecting water quality data or weed watching, you are making a



Diatoms. Diatoms are microscopic plants found in fresh and salt waters, and are some of the earliest forms of life. They differ from other algae in that they produce cell walls made of silica called frustules. Their silica walls are rather insoluble therefore dead cells can comprise a large volume of marine and lake sediments often referred to as diatomaceous deposits, and eventually may become diatomaceous earth, which is an important industrial product often used for filtration processes. Diatoms also serve as environmental indicators when studying their fossil history in lakes. Since certain diatom species can tolerate specific environmental conditions, their presence or absence can indicate environmental conditions, such as the start of the Industrial Revolution and the acidification of lake water.

positive impact on your community. Currently, 28% of New Hampshire residents volunteer, totalling 32.4 million hours, and ranking us 27th among other states. New Hampshire residents were most likely to volunteer in the educational, religious and social service fields. For more information and data related to volunteerism in New Hampshire visit [Volunteering in America](#).

The Global Lake Temperature Collaboration (GLTC)

Members of the North American Lake Management Society (NALMS), along with other limnologists and climate scientists started a grassroots effort at monitoring warming lake temperature trends. The effort referred to as GLTC, is compiling global lake temperature datasets from satellites and in-situ measurements that will then be analyzed to determine patterns in lake warming/cooling, mechanisms driving those patterns, and their impacts on lake ecosystems. Information on GLTC can be found at <http://www.laketemperature.org/index.html>.

Cyanobacteria Slide Show

The mid-west brings us a slide show with some disturbing images of cyanobacteria and how it affects daily lives, the recreation, tourism, and agriculture industry. I think this gets the point across. Check it out at <http://grist.org/slideshow/stay-out-of-the-water-a-toxic-algae-slideshow/>.

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